

CLAIMS

What is claimed is:

1. A flexible printed circuit board connected to a printer head having at least one heater discharging ink, the flexible printed circuit board comprising:
 - at least one voltage supplying terminal selectively supplying an operating voltage to the at least one heater in response to receiving a printing command signal from a printer;
 - at least one first cable connected at each end to the at least one voltage supplying terminal and at least one first bonding pad, respectively, transferring the operating voltage to the at least one heater;
 - at least one grounded terminal; and
 - at least one second cable connected at each end to the at least one grounded terminal and at least one second bonding pad, respectively, wherein the at least one second cable is divided into at least two portions at a predetermined position and a first portion of the at least two divided portions is provided along one side of the at least one first cable, and a second portion of the at least two divided portions is provided along the other side of the first cable.
2. The flexible printed circuit board according to claim 1, wherein a distance between the first cable and the first portion, and a distance between the first cable and the second portion, are 30 μ m-300 μ m, respectively.
3. The flexible printed circuit board according to claim 1, wherein in response to the first and the second bonding pads being distributed in a predetermined ratio and provided to a first side and a second side facing the first side on a printer head substrate, a separating distance between the first and the second cables connected to the first and the second bonding pads on the first side is different from a separating distance between the first and the second cables connected to the first and the second bonding pads on the second side.
4. The flexible printed circuit board according to claim 1, wherein the ends of the at least one first and second cables connected to the at least one first and second bonding pads, respectively, are each divided into at least two portions connected to the respective bonding pads.

5. The flexible printed circuit board according to claim 1, wherein the ends of the at least one first and second cables connected to the at least one first and second bonding pads, respectively, are coated with a second material other than a first material which comprises the cables.

6. The flexible printed circuit board according to claim 5, wherein the first material is copper and the second material is gold.

7. The flexible printed circuit board according to claim 1, wherein one side of each of the at least one voltage supplying terminal and the at least one grounded terminal is plated to electrically contact the printer.

8. The flexible printed circuit board according to claim 1, wherein the at least one first and second bonding pads are comprised of aluminum.

9. The flexible printed circuit board according to claim 1, wherein the at least one first and second cables are bonded to the at least one first and second bonding pads, respectively, by ultrasonic fusing.

10. The flexible printed circuit board according to claim 1, wherein an inductance is reduced by reduction of the predetermined distance separating the at least one first and second cables.

11. A flexible printed circuit board connected to a printer head, comprising:
voltage connection lines supplying voltage to the printer head; and
grounding connection lines providing grounding to the printer head;
wherein the grounding connection lines are each divided into at least two portions, and are provided in parallel along both sides of the respective voltage connection lines, separated from the voltage connection lines by a predetermined distance.

12. The flexible printed circuit board according to claim 11, wherein an impedance formed on the flexible printed circuit board is adjusted by adjusting the predetermined distance between the grounding connection lines and the voltage connection lines.

13. The flexible printed circuit board according to claim 11, wherein leads of the voltage and grounding connection lines connecting the connection lines to the printer head are each divided into at least two portions, and the at least two portions are bonded to the printer head.

14. A printer having the printer head connected to the flexible printed circuit board of claim 11 to transfer signals to the printer head to use in printing.

15. A printer having the printer head connected to the flexible printed circuit board of claim 1 to transfer signals to the printer head to use in printing.